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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,060	02/25/2004	Jim Threlkeld	248993US23	8942
22850 7590 09/15/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER MERCIER, MELISSA S				
ART UNIT 1615		PAPER NUMBER		
NOTIFICATION DATE 09/15/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

### Office Action Summary

**Application No.**

10/785,060

**Applicant(s)**

THRELKELD ET AL.

**Examiner**

MELISSA S. MERCIER

**Art Unit**

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-11, 15, 17-31, 33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11, 15, 17-31, 33 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9-4-08
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 22, 2008 has been entered.

Rejections and/or objections not reiterated from previous Office Actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application. Claims 1, 3-11, 15, 17-31, 33-34 remain pending in this application.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7, 9, 25, and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what Applicant is claiming by a continuous process. After a review of the specification, the examiner was unable to locate a definition of the term. The

examiner has interpreted a continuous process as a process which has steps carried out in a sequence over a specific timeframe.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-11, 15 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura (US Patent 6,384,254).

Omura teaches a fiber or fabric treating agent composition comprising the quaternary ammonium salt-containing polysiloxane as a main component. "A variety of fibers and fibrous materials can be treated with fiber or fabric treating agent composition, by adjusting the emulsion of the composition to a suitable concentration, and applying the emulsion to fibers or fabrics as by dipping, spraying or roll coating. As a general rule, an appropriate coating weight of the quaternary ammonium salt-containing polysiloxane is about 0.01 to 10% by weight based on the weight of the fibers or fabric. The coated fabrics are then dried by hot air blowing or in a heating furnace. The drying conditions include about 100-150 degrees C" (column 8, lines 4-18). The recitation of about 100C and Omura's additional disclosure that drying temperature can be modified based on the type of fibers and fabrics used would allow one of ordinary skill in the art to optimize the temperature in order to dry the fabric. It is further noted that no time limit has been set for the drying step. It is therefore the position of the examiner that since Omura discloses a time limit, it would have been within the

knowledge of the skilled artisan to adjust the time needed to ensure drying. It would have been obvious to one of ordinary skill in the art to have increased the drying time utilizing a lower temperature, or vice versa, lower the drying time by increasing the temperature.

Omura does not disclose the specific composite yarn or articles and reusing the bath in order to treat a second item.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have used any fabric which would be desirable to have antimicrobial properties. The claims are drawn to a method of providing antimicrobial properties. there is no teaching in the prior art that would lead one of ordinary skill in the art to believe that been able to treat yarns and articles would not be attainable when following the method steps of the instant claims.

Since Omura discloses the same compound, in the same amount, utilizing the same method of application steps, it is the position of the examiner that the final product would possess the same functional limitations as the instantly claim, (i.e. wherein the resulting composite item retains antimicrobial properties for at least 40 wash cycles). The USPTO does not possess laboratory facilities. The burden is on applicant to provide evidence as to the lack of functional properties when the same method and composition is disclosed in the prior art.

It would have been obvious to a person of ordinary skill in the art to reuse the bath in order to treat a second item. The limitation of "reusing the bath in a further

immersing step on a second composite item” is with the knowledge of one of ordinary skill in the art.

Applicant is reminded that where the general conditions of the claims are met, burden is shifted to applicant to provide a patentable distinction. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *In re Aller*, 220 F.2d 454 105 USPQ 233,235 (CCPA 1955).

Claims 19-24, 26, 28-31, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omura et al. (US Patent 6,384,254) in view of Smith III et al. (US Patent 6,759,127).

Omura's teaching are described above and applied in the same manner.

Omura does not disclose a copolymer of a long chain ( $C_{12}$  to  $C_{20}$ ) alkyl dimethylaminotrihydroxysilylpropyl ammonium halide and a chloroalkyl trihydroxysilane.

Smith discloses a textile article having flame resistant properties. Smith also teaches “for those cases where antimicrobial properties are desired, an antimicrobial agent is added to the chemical treatment. Smith's preferred antimicrobial agent is an organosilane composition comprising about 16% by weight of chloropropyl trihydroxysilane and about 84% by weight of Octadecylaminodimethyl trihydroxysilylpropyl Ammonium Chloride, available from Aegis under the trademark AEM 5700. Applicant's specification discloses, “particularly

preferred for use as the antimicrobial agent is a copolymer (which may or may not include partially or fully hydrolyzed forms) of octadecylaminodimethyltrihydroxysilylpropyl ammonium chloride and chloropropyltrihydroxysilane. Suitable such antimicrobials include, the antimicrobial agents from Aegis Environments such as AEM 5700 Antimicrobial, AEM 5772 Antimicrobial and AEGIS Antimicrobial" (page 6, lines 4-11).

It is generally considered to be prime facie obvious to combine compounds each of which is taught by the prior art to be useful for the same purpose in order to form a composition that is to be used for an identical purpose. The motivation for combining them flows from their having been used individually in the prior art, and from them being recognized in the prior art as useful for the same purpose. As shown by the recited teachings, instant claims are no more than the combination of conventional components of antimicrobial agents. It therefore follows that the instant claims define prime facie obvious subject matter. Cf. In re Kerhoven, 626 F.2d 848, 205 USPQ 1069 (CCPA 1980).

### ***Response to Arguments***

Applicant's arguments have been fully considered but they are not persuasive. It is unclear what Applicants arguments regarding the temperature at which the fibers/fabrics are dried. Applicant has presented three arguments:

I. the present method provides the ability to complete the treatment using a drying process at temperatures of no more than 100C;

II. because of the lower temperatures, the reaction with itself is prevalent over the reaction of the antimicrobial agents with water vapor and the subsequent reaction with the article surface at the elevated temperatures of the prior art, allow to treat any surface: and

III. the present invention also provides the ability to reuse the spent treatment liquid to treat multiple items sequentially.

As was discussed above in the rejection over Omura, it would have been obvious to one of ordinary skill in the art to utilize a lower temperature in order to dry the fabrics. The instant claims do not have a time limit as to the drying step; therefore, it would be well within the knowledge of the skilled artisan to use a lower temperature for a longer time or a higher temperature for a short time. Further, Omura discloses temperatures of about 100C, which is overlapping with the instant claims.

It is unclear what Applicant is intending to convey with the second argument. There does not appear to be any mention of reactions with water vapor in the Omura reference. Clarification is requested.

Applicant's third argument has also already been addressed above in the rejection. One of ordinary skill would seek to reuse the antimicrobial bath in order to save time and money, a commonly employed tactic in the manufacturing process.

Applicant's arguments regarding Levy are moot since Levy is not being used in the new rejections of record.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA S. MERCIER whose telephone number is (571)272-9039. The examiner can normally be reached on 8:00am-4:30pm Mon through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melissa S Mercier/  
Examiner, Art Unit 1615

/MP WOODWARD/  
Supervisory Patent Examiner, Art Unit 1615